Pyrethroids poisoning

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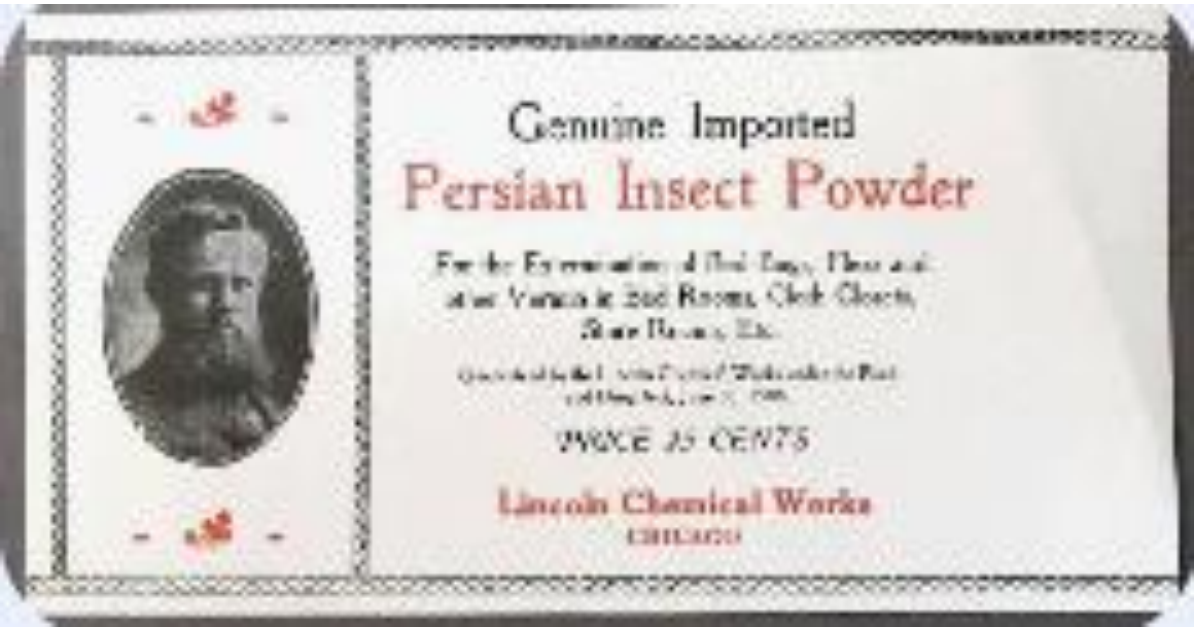
Chrysanthemum cinerariifolium





Century: 19 (Dalmatin powder)





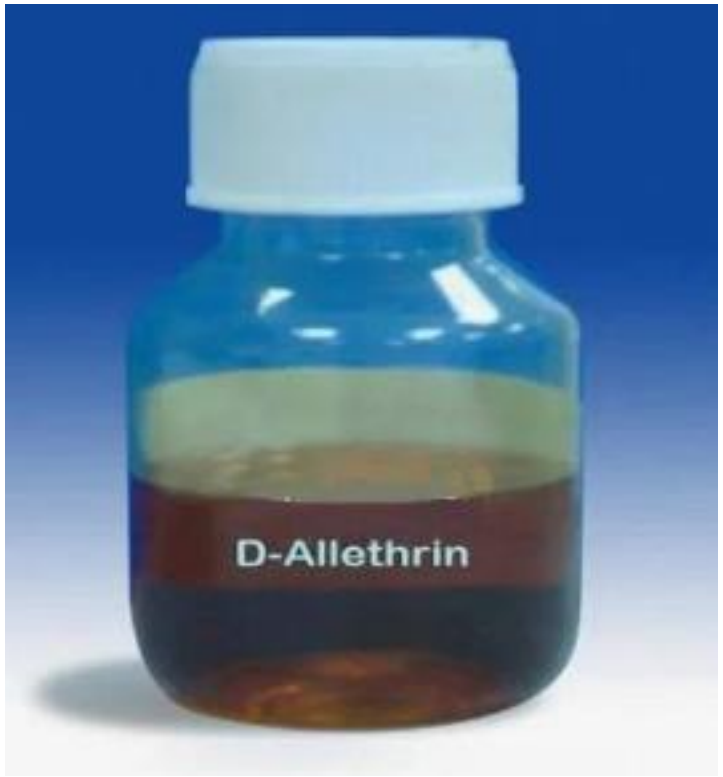


Century: Early 20

- Extraction: Pyrethrin I-II

- Effective + Safe + Unstable (Sun + O2)

1950: More persistent + Sun unstable + First synthetic



1970: plus Cl


durvet
PERMETHRIN 10%
Rapid Kill
Insecticide Concentrate
WARNING

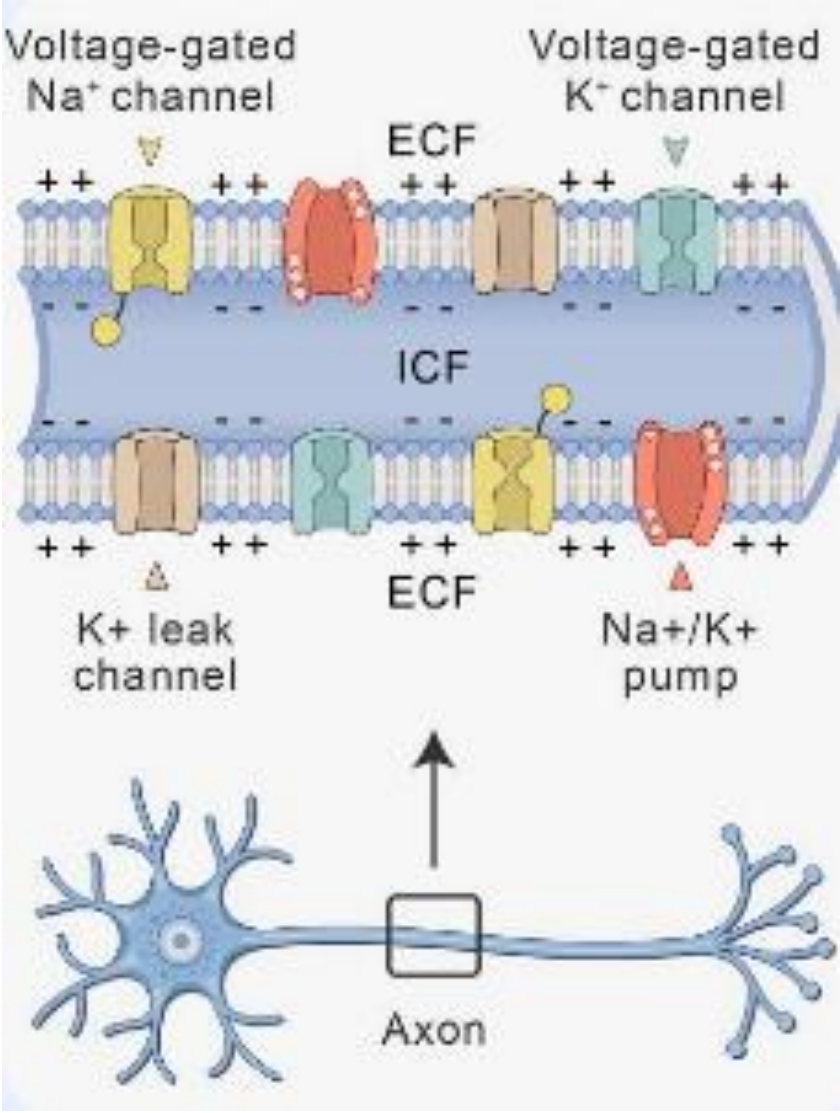

Efekto
CYPERMETHRIN
200EC
Emulsifiable Concentrate Insecticide
For use on Crops as indicated
Contact & Stomach Insecticide


DELTAMETHRIN 2.5EC
Synthetic Pyrethroid Insecticide
GROUP 3A INSECTICIDE
CHEMICALS

Mechanism

Lipophilic [Accumulation in nervous system & Lipids]

Disruption of sodium gating in Axons = Delay in closing → Hyper-excitation of nerve fibers → Continuous muscle stimulation →Clinical signs: Tremors, muscle fasciculations/spasms, and seizures



- **Fish** (Gill absorption) (More susceptible)
- **Bee**
- **Cat** (Genetic deficiency in hepatic glucuronosyltransferase)







Always read product labels in other animals: species-specific sensitivities exist for particular toxic compounds.

Mydriasis: Alpha-1 [Epinephrin]

Laboratory findings

- Such other agriculture toxins

- 1) Samples: …. + Urine (Short bioavalability)

Treatment

- No antidote
- Symptomatic
- Muscle relaxant: Methocarbamol [No Athropine]